D A E W O O • H Y D R A U L I C • D O Z E R

# DD80(L)

## DAEWOO NEW BULLDOZER

- **Operating Weight ;**
  **DD80(Canopy/Cabin) : 7,950 kg (17,526 lb) / 8,050kg(17,750lb)**
  **DD80L(Canopy/Cabin) : 8,400kg (18,519 lb) / 8,500kg(18,742lb)**
- **Blade Capacity : 1.486 $m^3$ (1.95 cu•yd)**
- **Rated Engine Power : 89 HP / 1,800 rpm**
  **66 kw / 1,800 rpm**

DAEWOO
DAEWOO HEAVY INDUSTRIES LTD.

# The Choice of experience
# Daewoo New Bulldozer DD 80(L)

The DAEWOO DD80(L) Dozer utilizes a variable displacement hydraulic pump and motor in a closed circuit. An advanced electronic control system has been incorporated for efficient performance and smooth operation.

## Micro-Controller

The hydraulic pump and motors which drive the dozer are controlled by a micro-controller which selects the ideal speed and horsepower output for the working conditions. The micro-controller has a built-in self diagnosis and data communication system, that in connection with an external computer permits monitoring of the machine's performance levels.

## Neutral-Start Parking Brake Lever

The Forward / Reverse selector lever is positioned in a convenient straight-line pattern. For added safety, the Forward/Reverse lever must be in the neutral position in order to start the engine.

## Parking Brake

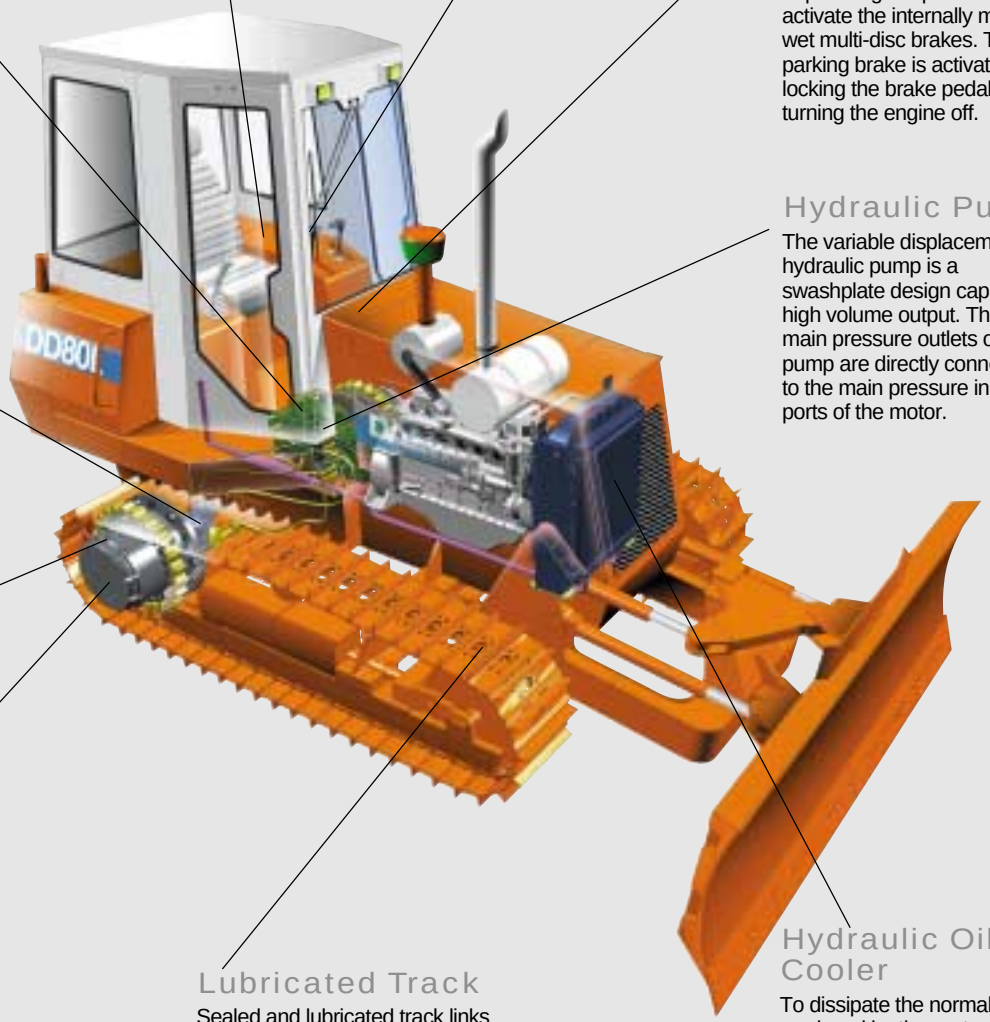
When the brake pedal is depressed, the speed is reduced in proportion to the amount of pressure applied to the pedal. This is achieved by increasing the hydraulic motor swashplate angle and reducing the hydraulic pump swashplate angle to activate the hydraulic brakes. When the pedal is in the detent position, the speed will decrease to 0. Further depressing the pedal will activate the internally mounted wet multi-disc brakes. The parking brake is activated by locking the brake pedals or by turning the engine off.

## Hydraulic Filters

The oil being discharged from the charge pump is filtered for maximum protection of the hydraulic system and a high pressure cartridge type filter is mounted directly on the hydraulic pump.

## Hydraulic Motor

The variable displacement hydraulic motors use spherical pistons and piston rings which allows for high speed operation. The pump and motor are connected in a closed circuit. The pump output volume and speed are controlled by the swashplate angle which determines the direction and speed of the dozer.




## Hydraulic Pump

The variable displacement hydraulic pump is a swashplate design capable of high volume output. The two main pressure outlets of the pump are directly connected to the main pressure input ports of the motor.

## Wet Multi-Disc Brake

The parking brakes are spring applied and hydraulically released. When the engine is shut off and there is no pressure from the charge pump, the parking brakes are automatically set due to the disc spring pressure.

## Final Reduction Gear

A final reduction gear is used with each drive motor which transfers power to the sprocket via a two stage planetary gear reduction system. An internally mounted wet multi disc brake system and floating seals are used to prevent leakage.

## Lubricated Track

Sealed and lubricated track links have been used to reduce wear and increase durability.

## Hydraulic Oil Cooler

To dissipate the normal heat produced by the system during operation, the oil discharged from the drain port flows through the oi cooler which is connected in parallel with the bypass valve bac to the oil tank. This keeps the oil cool and the hydraulic components simply last longer.

## Convenient Operation, Comfortable Operator's Cab

Left/Right steering and brakes are controlled by operating one of three pedals. This allows for extended operation without fatigue. The travel and blade levers are ergonomically designed for effortless operation. The roomy opertor's cab interior is designed with comfort in mind. The DD80(L) comes standard with a ROPS canopy for operator safety. The optional ROPS CAB is also available for the operator's safety and comfort with abundant sound suppression materials.

## Centralized Monitor Panel For Easy Inspection

Engine oil, hydraulic oil, coolant, fuel status information as well as the electronic control information can be easily monitored on the centralized instrument panel.

## Convenient Forward And Reverse Control

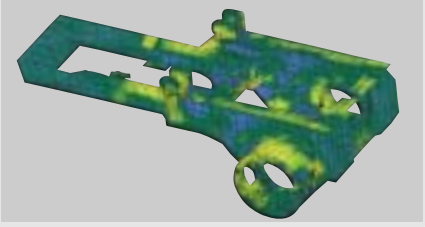
Operator efficiency and control has been greatly increased by incorporating a straight-line pattern for the Forward/Reverse lever.

## Reverse Warning Buzzer

For the safety of others in the working area, an automatic back up alarm will sound while in reverse gear.

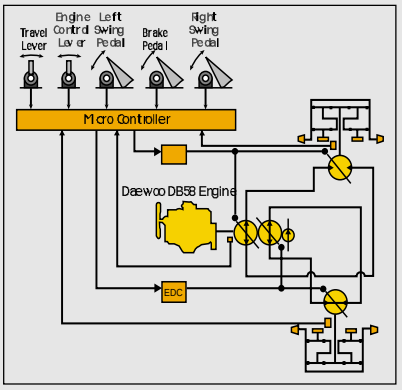
## Stress Analysis(FEM) Design

The frame has been designed and manufactured to be stronger and more durable through stress analysis (FEM). By using computer stress analysis, material quality and design have been improved. Any potential stress points have been eliminated resulting in greater product reliability and durability.



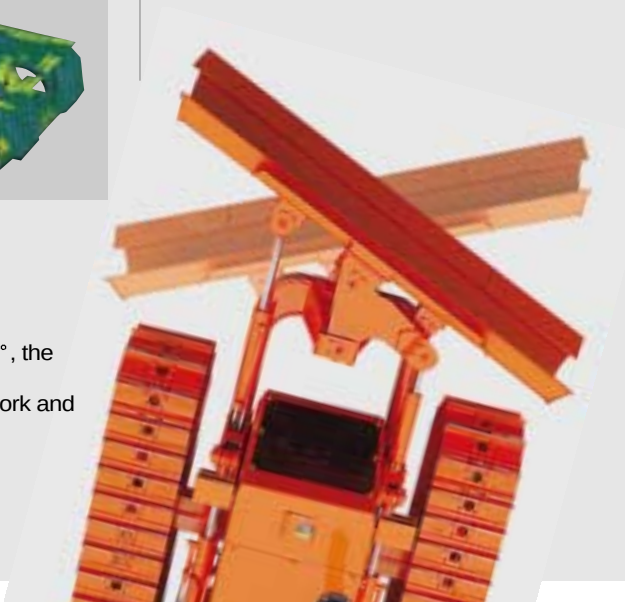
## Versatile Blade Operation

With a tilt height of 16.1 inches(410mm)and angle of 25°, the DD80(L) provides outstanding performance in heavy dozing work and in fine grading.




## Electronically Controlled Hydrostatic Transmission

The variable displacement hydraulic pump and motor drives the transmission in the forward or reverse direction. Each track can be independently operated for a smooth, effortless and precise steering and operation. The DD80(L) is capable of rotating 360° within it's own machine length. This allows ultimate maneuverability for the most efficient operation.



## Convenient Service

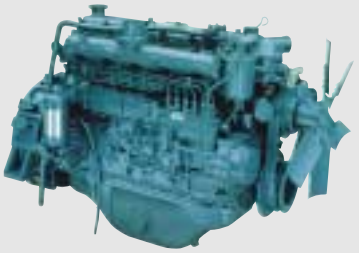
The engine compartment is designed with convenient access door. The air filter is located for easy replacement. The engine and major components are logically laid out for easy service and inspection.

## Battery Box

The powerful maintenance free batteries provide abundant cold cranking power. All relays have been centrally located for easy access and service, with a main circuit breaker (rest button)as standard equipment.

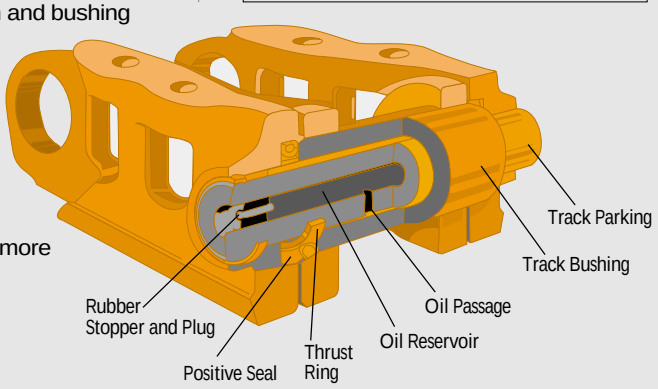
## 6 Cylinder High Output 90 Horse Power Engine

The powerful and versatile 6 cylinder DAEWOO DB58 engine(353 cu.in.)with a rating of 90 horse power provides outstanding performance in its class.



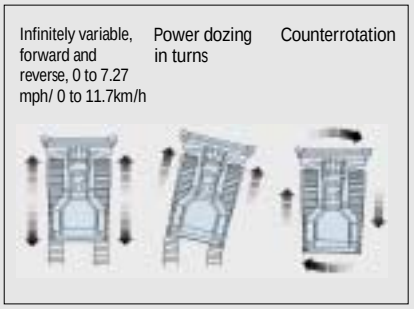
## Sealed and Lubricated Track

- Eliminates internal pin and bushing wear and extends external bushing life up to 50%
- Reduces maintenance, lowers costs and increases undercarriage life
- Reduces friction for quieter operation and more efficient use of horsepower




## Maneuverability

When the right/left pedals are depressed the dozer will turn in the direction in which the pedal was depressed the most. When the right or left pedal is depressed to the detent position the result will be a pivot turn. When the pedal is depressed further past the detent position, the result will be a spin turn centered around the center of the dozer.




## Strong Undercarriage

Sealed and lubricated track system has been incorporated for durability. The segmented sprockets allow easy service access.

# TechnicalData

## Engine

| | |
|---|---|
| Model | DAEWOO DB58 |
| Type | Water-Cooled 4-Cycle 6cylinder in-line, direct injection chamber type diesel engine |
| Rated flywheel horse power | 89HP 66kW at 1,800rpm(SAE J 1,349) 90PS 66kW at 1,800rpm(DIN 6,270 NET) |
| Piston displacement | 5,785cc(353cu.in) |
| Max. Torque | 323 Nm (33Kg.f/239lb-ft) at 1,600rpm |
| Bore and stroke | 102mm ×118mm (4.02″×4.65″) |
| Starting system | 24V Electric motor |
| Battery | 2 ×12V ×100AH |

**Automatic Horsepower Control :** Engine performance and fuel efficiency has been maximized by incorporating an engine output controller which automatically adjusts the engine output based on the load throughout the speed range.

When the anti-stall system senses an overload, the controller adjusts the engine speed to the maximum torque level by monitoring the load to prevent the engine from stalling.

## Final Drive

Rotating housing, planetary type final drive.
Bolt-on type sprockets for easy replacement.

## Hydrostatic Transmission(HST)

Variable displacement hydraulic pump and motor are connected in closed circuit and permits smooth forward and reverse travel. Left and right track speeds are independently controllable and allows 360° turns within it's own machine length for the most efficient operation. The forward and reverse direction is selected by the in-line pattern select lever.

Travel speeds at rated engine rpm

| | |
|---|---|
| Forward | 7.27mph (11.7km/h) |
| Reverse | 7.27mph (11.7km/h) |

## Travel and Braking

Travel and braking are controlled by 2 travel pedals and 1brake pedal. The travel speed is reduced in proportion to the amount of pressure applied to the travel pedals. When one of the pedals are depressed to the detent position the dozer will make a pivot turn, when the brakes are applied while traveling, the swashplate angle will change and the hydraulic brakes will be activated. The mechanical brake are activated when the the engine is shut off or the brake pedal is locked in the parking position.

Emergency travel(limp home) system : When malfunction is detected the warning lamp will become lit and the machine will automatically shut down. The limp-home system can be used to move the machine to a safe location for inspection or repair.

## Undercarriage

SALT(Sealed and Lubricated Track) type link have been incorporated for increased durability. 2-piece Master Link system has been selected for increased serviceability and replacement. The hydraulic track adjust system for track tension adjustment allows for easy maintenance.

| | |
|---|---|
| Suspension | Rigid type |
| Track and roller frame | Box section construction |
| Rollers and idlers | Lubricated idlers, carrier rollers are sealed with floating seals |
| Number of track rollers (each side) | 6 |
| Number of carrier rollers (each side) | 1 |
| Track shoes | DD80 ; Only 18″ Single grouser shoe<br>DD80L ; STD : 30″Single grouser shoe<br>OPT : 18″Single grouser shoe |

| | DD80 | DD80L |
|---|---|---|
| Number of shoes(each side) | 39 | 39 |
| Width of standard shoe (Single Grouser) | 1′6″(457mm) | 2′6″(762mm) |
| Length of track on ground | 6′9″(2,055mm) | 6′9″(2,055mm) |
| Ground contact area with Standard shoe | 2,911in²(1.88m²) | 4,854in²(3.13m²) |
| Track gauge | 4′11″(1,520mm) | 5′10″(1,800mm) |
| Ground pressure | 5.26 psi(0.37kg/cm²) | 3.41psi(0.24kg/cm²) |

## Coolant & Lubricant Capacity(Refilling)

| | |
|---|---|
| Coolant | 3.75 Gal(14.2 l) |
| Fuel tank | 70Gal(265 l) |
| Engine | 3.2 Gal(12 l) |
| Final drive (each side) | 1.2 Gal(4.5 l) |
| Hydraulic tank | 32 Gal(121 l) |

## Operating Weight (Approximate)

| | DD80 | DD80L |
|---|---|---|
| Tractor weight, including rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment | 15,145lb (6870kg) | 16,138 lb (7320kg) |
| operating weight, including power angle-tilt blade, operator, standard equipment, rated capacity of lubricant ROPS canopy, coolant and full fuel tank | 17,526 lb(7,950 kg) | 18,519 lb(8,400 kg) |

## Hydraulic System

**Hydraulic control unit :**
Gear type hydraulic pump mounted on rear of main pump with capacity(discharge flow) of 62 l/min at rated rpm
Relief valve setting 19.2 Mpa (195 kg/cm²/2,770 psi)

**Control Valves**
Three control valves for power-angle -tilt dozer

| | | |
|---|---|---|
| **Positions :** | Blade lift | Raise, Hold, Lower and Float |
| | Blade angle | Left, Hold and Right |
| | Blade tlit | Left, Hold and Right |

**Hydraulic cylinders :** Double-acting, piston type

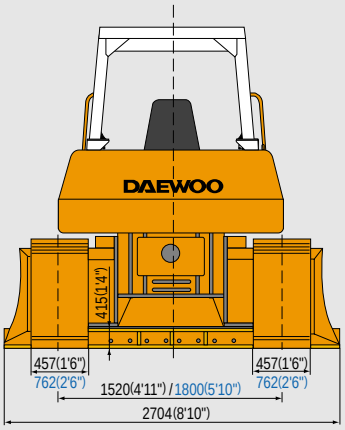
| | Number of Cylinders | Bore |
|---|---|---|
| Blade lift | 2 | 3.54″(90mm) |
| Blade tilt | 1 | 3.54″(90mm) |
| Blade angling | 2 | 3.54″(90mm) |

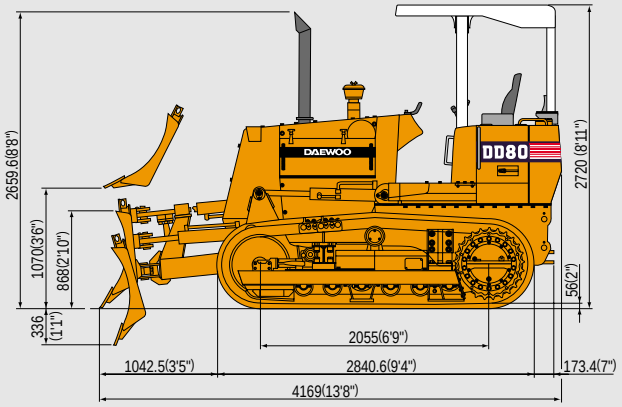
## Dimensions(Approximate)

| | |
|---|---|
| Ground clearance | 1′4″(415mm) |
| Width Without Blade (DD80) | 6′5″(1,977 mm) |
| Width Without Blade (DD80L) | 8′4″(2,562mm) |

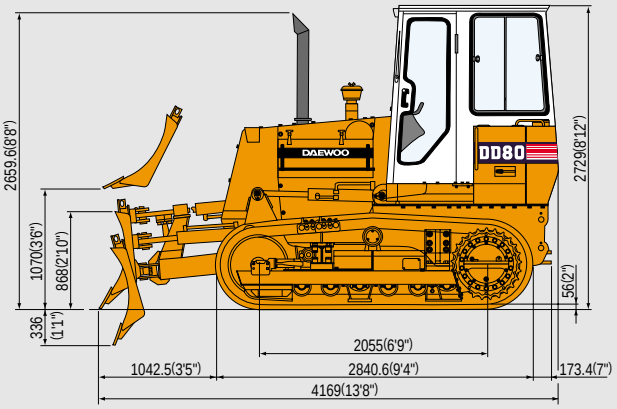
# DD80(L) Dimension

## ●Canopy Type




## ●Cabin Type




∗: DD80L Dimension

∗Specifications are subject to change without prior notice

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